

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-W-1-4
Relating to Certification of
New Spark-Ignition Marine Engines

MERCURY MARINE

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, and 43104 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following new spark-ignition marine engine and exhaust emission control system produced by the manufacturer is certified as described below.

Model Year: 2001

Fuel Type: Gasoline

Level of Cleanliness: Very Low Emission ("Two Stars")

Equipment Application: Outboard

Engine Family: 1M9XM.3232G0

Displacement: 323 cc

Exhaust Emission Control Systems and Special Features: EM

Engine models are listed on the attachment. Production engines shall be in all material respects the same as those for which certification is granted.

BE IT FURTHER RESOLVED: That the manufacturer has opted to certify, and has certified the listed engines to the hydrocarbon plus oxides of nitrogen (HC+NOx) exhaust emission standard described below, expressed in grams per kilowatt-hr (g/kW-hr) under Section 2442(b) of Title 13, California Code of Regulations (13 CCR).

HC + NOx
(estimated) Standard

49.37

Certification
Level

22.61

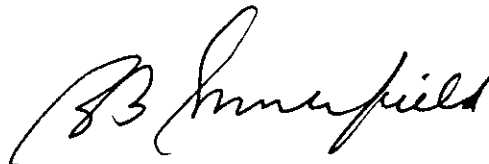
Compliance with the standard under 13 CCR Section 2442(b) shall be determined based on the sales-weighted average power of the engine family based on engines produced in this family for sale in California. This engine family shall not be used to determine compliance through corporate averaging.

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with the following California emission regulations and requirements. Engines certified under this Executive Order shall conform to all applicable California emission regulations and requirements:

- All applicable requirements in the "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines";
- Emission Control Labeling and Consumer/Environmental Labeling (Title 13, California Code of Regulations, Sections 2443.1, 2443.2 and 2443.3);
- Emission Control System Warranty (Title 13, California Code of Regulations, Sections 2445.1 and 2445.2);
- Closed Crankcases (Part 1, Section 18.(h) of the "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines"); and
- Quarterly reports of engines produced in this family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

BE IT FURTHER RESOLVED: That the certification to Section 2443.3, Title 13, California Regulations described herein is conditioned on approval of that section by California's Office of Administrative Law pursuant to Government Code Section 11349.4.

Executed at El Monte, California this 27th day of March 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

Model Year: 2001 Page: _____
 Manufacturer Name: Mercury Marine Issued: _____
 Engine Family: LM9AM.323250 Revised: _____
 E.O.#: U-W-1-4

SI Marine Engine Model Summary Form

44. Engine Family Sales-Weighted Power: _____ kW

45. Model Designation	46. Sales Codes (Check all appropriate)			47. Disp. (cc)	48. Bore/Stroke (mm)	49. Basic Ignition Timing (deg. @ idle)	50. Power (kW)	51. Rated Speed (RPM)	52. Rated Torque (N-m)	53. Torque Speed (RPM)	54. ECS
	Calif. Only	49- State	50- State								
1F10203YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10213YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10213YN			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10253YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10263YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10312YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10312YN			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10352YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10352YN			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F10361YD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
1F15203YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15213YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15253YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	

Model Year: 2001 Page: _____
 Manufacturer Name: Mercury Marine Issued: _____
 Engine Family: 1M9XM 323260 Revised: _____
 E.O.#: U-W-1-4

SI Marine Engine Model Summary Form

44. Engine Family Sales-Weighted Power: kW											
45. Model Designation	46. Sales Codes			47. Disp. (cc)	48. Bore/Stroke (mm)	49. Basic Ignition Timing (deg. @ idle)	50. Power (kW)	51. Rated Speed (RPM)	52. Rated Torque (N-m)	53. Torque Speed (RPM)	54. ECS
	Calif. Only	49- State	50- State								
1F15301YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15302YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15311YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15312YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
1F15352YD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
7F10203KD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
7F10213KD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
7F10253KD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
7F10312KD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
7F10352KD			X	323	59/59	10ATDC	7.4	5000	38.1	2680	
7F15203KD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
7F15213KD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	
7F15301KD			X	323	59/59	10ATDC	11.2	5000	44.8	3500	

Model Year: 2001
 Manufacturer Name: McLurey Marine
 Engine Family: 1M9XM.32B250
 E.O.#: 11-W-1-4

Page: _____
 Issued: _____
 Revised: _____

SI Marine Engine Model Summary Form

44. Engine Family Sales-Weighted Power: _____ kW

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